

[54] **SENSOR FOR TESTING LIGHT AND WEATHER RESISTANCE OF SAMPLES**

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[58] Field of Search 250/372, 373, 239, 226; 356/407, 51; 73/150 R

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[57] **ABSTRACT**

A sensor for use in testing the effect on materials of irradiation and weathering uses solar cells (10) to provide power and uses a transmitter (3) to continuously read out its measurements without interrupting the testing process. The sensor features a number of receptor cells (2) for various spectral ranges and a temperature sensor (17), whose measurements are multiplexed and transmitted under the control of a control logic 18. The receptor cells (2), the photo cells (10) and the electronics (16) are all contained in a preferably cylindrical quartz glass tube (4). The self-contained nature of the sensor and the continuous, immediate read-out of measurements eliminate external wiring requirements and speed up the testing process.

14 Claims, 4 Drawing Figures

